



Royal Commission
into National Natural
Disaster Arrangements

Submission Cover Sheet

This cover sheet has been prepared by the Commission's public contact team to accompany a submission.

Person completing cover sheet

1. **Staff member name** [REDACTED]
2. **Date completed** 27.05.2020
3. **This cover sheet has been completed based on:**
 - details contained in the submission
 - a phone call with the person making the submission
 - an email from the person making the submission
 - Other (provide details) -

Submission details

4. **Full name** [REDACTED]
5. **Email** [REDACTED]
6. **Telephone**
7. **Preferred method of contact**
8. **Is the submission based on:**
 - primarily based on their personal situation.
 - primarily based on their professional knowledge, qualifications or experience, or on behalf of a group or organisation
9. **If the person is making the submission on behalf of a group or organisation, what is the name of the group or organisation:**

If the submission based on personal experience:

10. **What was their personal situation in relation to the 2019-20 Bushfires? Choose all that apply.**
 - were not living in an area affected by bushfire
 - were in an area affected by bushfires but was not evacuated, and didn't suffer personal or financial loss
 - lived in an area affected by bushfires and was evacuated, but didn't suffer personal or financial loss
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- lived in an area affected by bushfires and was evacuated, and I suffered personal or financial loss
- part of the emergency response as a fire fighter on the ground
- part of the emergency response as an aerial fire fighter
- part of the emergency response as health professional
- part of the emergency response as an Australian Defence Force member
- part of the emergency response as a Commonwealth or State government employee
- assisted the emergency response as a community support volunteer
- assisted the emergency recovery (i.e. after the fire event) as a community support volunteer
- Other

11. Where does the person live:

Local Government Area

Choose an item.

Town name

Post code

If the submission is based on professional experience

12. What is your area of expertise? Please choose all that apply.

- Emergency/disaster response and/or management
- Environment/land management
- Land use, planning, building standards
- Impacts of changes in climatic conditions
- Wildlife conservation
- Traditional land and fire management practices of Indigenous Australians
- Community welfare
- Other

All submissions

13. Does the person agree to their submission being published?

- Yes, agree to the submission being published in their name
 - Yes, agree to the submission being published anonymously
 - No, does not agree to the submission being published
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For many years in 3 states New South Wales, West Australia, and presently in Victoria I have observed fires from a country residential situation observing bushfires.

While most fires in WA are grass type fires I have seen catastrophic wild fires in Victoria. I believe in a better way to extinguish the flames to help control a better outcome.

Liquid Nitrogen is one of the coldest liquids in the world it makes up 70% of our atmosphere in its gaseous form so is as plentiful as water and is non combustible however as a liquid it will expand 790 times or 1 litre of LN will expand to become 790 litres of gas.

Non flammable gas !

In the 1960s some research was done in putting out fires with LN and it was found the latent heat in wood would recombust after the Nitrogen gas had dissipated, however no water was used in conjunction with LN. I believe that Aerial deployment is an ideal option. An example is the deep horizon oil rig fire in the Gulf of Mexico which caused the largest oil spill and environmental damage of all time. If 8 tonnes of LN could have been deployed on the oil rig the fire would be extinguished in less than a minute, and repairs could have been started to avoid the environmental disaster.

I am not saying this system can stop a wildfire but it can protect valuable infrastructure costing millions by shielding with a cloud of non flammable gas.

Favorite air frame for deployment of LN

V22 Osprey payload 9 tonnes



Cost of aircraft is 70 million USDollars and needs a civilian upgrade to retrofit a cryo tank in its payload bay at present fires over 8 stories are impossible to control this system can easily extinguish fires at any level can be used in most fire scenarios. If there are any questions I am available to give more details as I have spent 12 years on this system and carried out practical tests to evaluate its use and success.

As to hurricane modification the V22 Osprey has a ceiling of 5000 metres and if LN is deployed on an outer edge of a hurricane it can produce the equivalent of a hole at a point to be determined so exhausting air pressure would escape and effectively steering it away from population centres eg like New Orleans and

hurricane Katrina which caused 2 billion dollars US in damage,the system all though expensive can save billions of dollars valuable infrastructure and hundreds of lives if not thousands.

This system is needed now for global deployment and a minimum of 10 units are required one based next to a liquid Nitrogen facility in NSW

Please put 4 emails and attachment together with thanks

Your servant

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